GIFFORD, KRASS, GROH, SPRINKLE, ANDERSON & CITKOWSKI, P.C. 280 N. OLD WOODWARD AVENUE, STE. 400, BIRMINGHAM, MICHIGAN 48009-5394 (248) 647-6000

B1

CLAIM AMENDMENTS

1. (Currently Amended) Apparatus for reducing distortion in a high-resolution switching amplifier of the type wherein multiple references are switched to a load in accordance with an input signal, comprising:

a source of a primary reference signal; and

circuitry for calibrating a separate secondary reference signal as a function of the primary reference signal when the input signal is zero, such that the secondary reference signal approaches the value of the integral of the primary reference at a pulse-width of one.

2. (Canceled)

3. (Original) The apparatus of claim 2, wherein the circuitry includes:

a comparator connected across the load; and

an integrator connected to receive the output of the comparator.

4. (Original) The apparatus of claim 3, wherein the circuitry further includes:

a pulse-width modulator connected to the output of the integrator.

5. (Original) A method of reducing distortion in a high-resolution switching amplifier of the type wherein primary and secondary references are switched to a load in accordance with an input signal, the method comprising the steps of:

comparing the integral of the primary reference to the integral of the voltage across the load when the input is zero; and

pulse-width modulating the result of the comparison for use as the secondary reference.

Please add new claims 6-10 as follows:

6. (New) In a high-resolution switching amplifier of the type wherein multiple references are switched to a load in accordance with an input signal, the improvement comprising:

a source of a primary reference signal; and

GIFFORD, KRASS, GROH, SPRINKLE, ANDERSON & CITKOWSKI, P.C. 280 N. OLD WOODWARD AVENUE, STE. 400, BIRMINGHAM, MICHIGAN 48009-5394 (248) 647-6000

circuitry for calibrating a separate secondary reference signal as a function of the primary reference signal when the input signal is zero.

7. (New) The apparatus of claim 6, wherein the secondary reference signal approaches the value of the integral of the primary reference at a pulse-width of one.

8. (New) The apparatus of claim 7, wherein the circuitry includes:

a comparator connected across the load; and

an integrator connected to receive the output of the comparator.

B1

9. (New) The apparatus of claim 8, wherein the circuitry further includes:

a pulse-width modulator connected to the output of the integrator.

10. (New) A method of reducing distortion in a high-resolution switching amplifier of the type wherein primary and secondary references are switched to a load in accordance with an input signal, the method comprising the steps of:

comparing the integral of the primary reference to the integral of the voltage across the load when the input is zero; and

pulse-width modulating the result of the comparison for use as the secondary reference.